

AMENDMENTS TO THE CLAIMS

Claim 1 (canceled).

Claim 2 (currently amended): ~~The~~ An isolated and purified ~~mouse~~ urocortin III protein ~~of claim 1, wherein said protein is mouse urocortin III~~ derived from a precursor peptide of amino acid sequence SEQ ID No: 4.

Claim 3 (currently amended): ~~The~~ An isolated and purified ~~mouse~~ urocortin III protein ~~of claim 1, wherein said protein is mouse urocortin III~~ having amino acid sequence SEQ ID No: 5.

Claim 4 (original): The mouse urocortin III protein of claim 3, wherein the N-terminal end of said protein is modified with acylating agents selected from the group consisting of carboxyl-containing moieties, sulfonyl-containing moieties and isocyanates.

Claim 5 (original): The mouse urocortin protein of claim 3, wherein the N-terminal end of said protein is extended with additional amino acids or peptides selected from the group

consisting of D-tyrosine, L-tyrosine, D-tyrosine-glycine, and L-tyrosine-glycine.

Claim 6 (original): The mouse urocortin III protein of claim 3, wherein the N-terminal end of said protein is chemically crosslinked to a toxin molecule.

Claim 7 (original): The mouse urocortin III protein of claim 3, wherein the N-terminal end of said protein is extended with additional amino acids or peptides selected from the group consisting of D-iodotyrosine, L-iodotyrosine, D-iodotyrosine-glycine, and L-iodotyrosine-glycine and wherein methionine residues at positions 12 and 35 are replaced with Nle.

Claim 8 (original): The mouse urocortin III protein of claim 7, wherein the iodotyrosine residue is labeled with an ^{125}I radioisotope.

Claim 9 (original): A CRF-R2 antagonist comprising the mouse urocortin III protein of claim 3 with an N-terminal deletion selected from the group consisting of the first five amino acids, the

first six amino acid, the first seven amino acids, and the first eight amino acids.

Claim 10 (original): A pharmaceutical composition comprising the CRF-R2 antagonist of claim 9 and a pharmaceutically acceptable carrier.

Claims 11-13 (canceled).

Claim 14 (original): The CRF-R2 antagonist of claim 9 wherein the N-terminal end of said antagonist is blocked with an acylating agent selected from the group consisting of carboxyl-containing moieties, sulfonyl-containing moieties and isocyanates.

Claim 15 (original): A pharmaceutical composition comprising the CRF-R2 antagonist of claim 14 and a pharmaceutically acceptable carrier.

Claims 16-18 (canceled).

Claim 19 (original): A synthetic urocortin III analog comprising the mouse urocortin III protein of claim 3, wherein said protein contains one or more amino acid substitutions selected from the group consisting of Ile₃, Nle₃, C_αMe-Leu₃, Ile₅, Nle₅, C_αMe-Leu₅, Leu₇, Nle₇, Thr₈, Ile₉, Phe₉, Gly₁₀, His₁₀, Leu₁₁, Nle₁₁, Leu₁₂, Nle₁₂, Arg₁₃, Gln₁₃, Nle₁₄, C_αMe-Leu₁₄, Nle₁₅, C_αMe-Leu₁₅, C_αMe-Leu₁₆, Leu₁₆, Nle₁₆, Glu₁₇, Asp₁₇, Nle₁₈, Leu₁₈, Arg₂₀, Nle₂₄, C_αMe-Leu₂₄, Arg₃₂, Ile₃₄, Nle₃₄, C_αMe-Leu₃₄, Leu₃₅, Nle₃₅, Asp₃₆, Glu₃₆ and Val₃₈.

Claim 20 (original): The synthetic urocortin III analog of claim 19, wherein a methionine residue at position 12 is replaced with Nle.

Claim 21 (original): The synthetic urocortin III analog of claim 19, wherein a methionine residue at position 35 is replaced with Nle.

Claim 22 (original): A pharmaceutical composition comprising the synthetic urocortin III analog of claim 19 and a pharmaceutically acceptable carrier.

Claims 23-24 (canceled).

Claim 25 (original): A CRF-R2 antagonist comprising the synthetic urocortin III analog of claim 19 with an N-terminal deletion selected from the group consisting of the first five amino acids, the first six amino acid, the first seven amino acids, and the first eight amino acids.

Claim 26 (original): A pharmaceutical composition comprising the CRF-R2 antagonist of claim 25 and a pharmaceutically acceptable carrier.

Claims 27-29 (canceled).

Claim 30 (original): The CRF-R2 antagonist of claim 25 wherein the N-terminal end of said antagonist is blocked with an acylating agent selected from the group consisting of carboxyl-containing moieties, sulfonyl-containing moieties and isocyanates.

Claim 31 (currently amended): A pharmaceutical composition comprising the CRF-R2 antagonist of claim 29 25 and a pharmaceutically acceptable carrier.

Claims 32-35 (canceled).

Claim 36 (currently amended): ~~The An~~ isolated and purified ~~human~~ urocortin III protein ~~of claim 35, wherein said protein is human urocortin III~~ having amino acid sequence SEQ ID No: 3 with one or more amino acid substitutions selected from the group consisting of Ile₁₄, Asp₁₉, Lys₂₇, or Gln₃₃.

Claim 37 (canceled).

Claim 38 (currently amended): The human urocortin III protein of claim 36 37, wherein said ~~protein contains a single amino acid substitution is consisting of~~ Ile₁₄.

Claim 39 (original): The human urocortin III protein of claim 36, wherein the N-terminus of said protein is extended with an

acylating agent selected from the group consisting of carboxyl-containing moieties, sulfonyl-containing moieties and isocyanates.

Claim 40 (original): The human urocortin III protein of claim 36, wherein the N-terminal end of said protein is extended with additional amino acids or peptides selected from the group consisting of D-tyrosine, L-tyrosine, D-tyrosine-glycine, and L-tyrosine-glycine.

Claim 41 (original): The human urocortin III protein of claim 36, wherein the N-terminal end of said protein is chemically crosslinked to a toxin molecule.

Claim 42 (original): The human urocortin III protein of claim 36, wherein the N-terminal end of said protein is extended with additional amino acids or peptides selected from the group consisting of D-iodotyrosine, L-iodotyrosine, D-iodotyrosine-glycine, and L-iodotyrosine-glycine and wherein methionine residues at positions 12 and 35 are replaced with Nle.

Claim 43 (currently amended): The human urocortin III protein of claim ~~42~~ 41, wherein the iodotyrosine residue is labeled with an ¹²⁵I radioisotope.

Claim 44 (original): A CRF-R2 antagonist comprising the human urocortin III protein of claim 36 with an N-terminal deletion selected from the group consisting of the first five amino acids, the first six amino acid, the first seven amino acids, and the first eight amino acids.

Claim 45 (original): A pharmaceutical composition comprising the CRF-R2 antagonist of claim 44 and a pharmaceutically acceptable carrier.

Claims 46-48 (canceled).

Claim 49 (currently amended): A CRFR2 antagonist comprising the CRF-R2 antagonist of claim 44 wherein the N-terminal end of said antagonist is blocked with an acylating agent selected from the group consisting of carboxyl-containing moieties, sulfonyl-containing moieties and isocyanates.

Claim 50 (original): A pharmaceutical composition comprising the CRF-R2 antagonist of claim 49 and a pharmaceutically acceptable carrier.

Claims 51-53 (canceled).

Claim 54 (currently amended): A synthetic urocortin III analog comprising ~~the an isolated and purified~~ human urocortin III protein ~~of claim 36, wherein said protein contains~~ having amino acid sequence SEQ ID No: 3 with one or more amino acid substitutions selected from the group consisting of Ile₃, Nle₃, C_αMe-Leu₃, Ile₅, Nle₅, C_αMe-Leu₅, Leu₇, Nle₇, Thr₈, Ile₉, Phe₉, Gly₁₀, His₁₀, Leu₁₁, Nle₁₁, Leu₁₂, Nle₁₂, Arg₁₃, Gln₁₃, Nle₁₄, C_αMe-Leu₁₄, Nle₁₅, C_αMe-Leu₁₅, C_αMe-Leu₁₆, Leu₁₆, Nle₁₆, Glu₁₇, Asp₁₇, Nle₁₈, Leu₁₈, Arg₂₀, Nle₂₄, C_αMe-Leu₂₄, Arg₃₂, Ile₃₄, Nle₃₄, C_αMe-Leu₃₄, Leu₃₅, Nle₃₅, Asp₃₆, Glu₃₆, and Val₃₈.

Claim 55 (original): The urocortin III analog of claim 54, wherein a methionine residue at position 12 is replaced with Nle.

Claim 56 (original): The urocortin III analog of claim 54, wherein a methionine residue at position 35 is replaced with Nle.

Claim 57 (original): A pharmaceutical composition comprising the urocortin III analog of claim 54 and a pharmaceutically acceptable carrier.

Claims 58-59 (canceled).

Claim 60 (original): A CRF-R2 antagonist comprising the human urocortin III analog of claim 54 with an N-terminal deletion selected from the group consisting of the first five amino acids, the first six amino acid, the first seven amino acids, and the first eight amino acids.

Claim 61 (original): A pharmaceutical composition comprising the CRF-R2 antagonist of claim 60 and a pharmaceutically acceptable carrier.

Claims 62-64 (canceled).

Claim 65 (original): The CRF-R2 antagonist of claim 60 wherein the N-terminal end of said antagonist is blocked with an acylating agent selected from the group consisting of carboxyl-containing moieties, sulfonyl-containing moieties and isocyanates.

Claim 66 (original): A pharmaceutical composition comprising the CRF-R2 antagonist of claim 65 and a pharmaceutically acceptable carrier.

Claims 67-77 (canceled).

Claim 78 (new): The human urocortin III protein of claim 36, wherein said protein having SEQ ID NO: 3 is derived from a precursor peptide of amino acid sequence SEQ ID No: 2.

Claim 79 (new): The human urocortin III protein of claim 54, wherein the N-terminal end of said protein is extended with additional amino acids or peptides selected from the group consisting of D-tyrosine, L-tyrosine, D-tyrosine-glycine, and L-tyrosine-glycine.

Claim 80 (new): The human urocortin III protein of claim 54, wherein the N-terminal end of said protein is chemically crosslinked to a toxin molecule.

Claim 81 (new): The human urocortin III protein of claim 54, wherein the amino acid substitutions are Nle₁₂ and Nle₃₅ and wherein the N-terminal end of said protein is extended with additional amino acids or peptides selected from the group consisting of D-iodotyrosine, L-iodotyrosine, D-iodotyrosine-glycine, and L-iodotyrosine-glycine.

Claim 82 (new): The human urocortin III protein of claim 54, wherein the iodotyrosine residue is labeled with an ¹²⁵I radioisotope.